FILE 'MEDLINE, BIOSIS, EMBASE, CAPLUS' ENTERED AT 10:53:39 ON 25 NOV 2003

L1	0	S	TETRADECYL MYRISTOYLAMIDE
L2	62869	S	MICELLES
L3	96531	S	LIPOSOMES
L4	9	S	DI-TETRADECYLAMINE
L5	0	S	DITETRADECYL AMINOPOLYLYSINE
L6	14991	S	POLYLYSINE
L7	2058	S	"DNA DELIVERY"
L8	349	S	L3 AND L7
L9	202		DUP REM L8 (147 DUPLICATES REMOVED)
L10	149	S	L9 NOT PY>=2002
L11	4	S	L2 AND L3 AND L7
L12	736	S	"LIPOSOME FORMULATION"
L13	9	S	L12 AND L7
L14	6		DUP REM L13 (3 DUPLICATES REMOVED)
L15	8955	S	"LIPID SYNTHESIS"
L16	1	S	L15 AND L7

FILE 'STNGUIDE' ENTERED AT 10:58:59 ON 25 NOV 2003

L17	0	S	PHTHALAMIDO PROPYLAMINE
L18	0	S	DITETRADECYL-2-HYDROXYL-3-N-PHTHALAMIDO PROPYL AMINE
L19	0	S	PHTHALAMIDO

L Number	Hits	Search Text	DB	Time stamp
1	15201	tetradecyl myristoylamide	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/11/25 09:56
2	10412	micelles	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/11/25 09:56
3	36405	liposomes	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/11/25 09:56
4	132	(tetradecyl myristoylamide) and micelles and liposomes	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/11/25 09:56
5	0	((tetradecyl myristoylamide) and micelles and liposomes) and "delivery to cells"	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/11/25 09:57
6	3	((tetradecyl myristoylamide) and micelles and liposomes) and "cell delivery"	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/11/25 10:03
7	1	di-tetradecylamine	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/11/25 10:04
8	0	ditetradecyl WITH hydroxyl AND propylamine	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/11/25 10:05
9	416	ditetradecyl aminopolylysine	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/11/25 10:05
10	0	(ditetradecyl aminopolylysine) and (((tetradecyl myristoylamide) and micelles and liposomes) and "cell delivery")	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/11/25 10:06
11	25	(ditetradecyl aminopolylysine) and micelles	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/11/25 10:17
12	0	aminopolylysine	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/11/25 10:18
13	8161	polylysine	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/11/25 10:18
14	4119	polylysine and liposomes	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/11/25 10:18
15	1	(polylysine and liposomes) and (((tetradecyl myristoylamide) and micelles and liposomes) and "cell delivery")	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/11/25 10:25
17	2024	"DNA delivery"	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/11/25 10:25
18	1441	liposomes and "DNA delivery"	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/11/25 10:25

19	151	(liposomes and "DNA delivery") and micelles	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/11/25 10:25

L10 ANSWER 18 OF 149 MEDLINE on STN

ACCESSION NUMBER: 2000031164 MEDLINE
DOCUMENT NUMBER: 20031164 PubMed ID: 10566888
TITLE: Subcellular trafficking of the cytoplasmic expression system.
AUTHOR: Brisson M; Tseng W C; Almonte C; Watkins S; Huang L
CORPORATE SOURCE: Department of Pharmacology, University of Pittsburgh School of Medicine, PA 15261, USA.
SOURCE: HUMAN GENE THERAPY, (1999 Nov 1) 10 (16) 2601-13.
Journal code: 9008950. ISSN: 1043-0342.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199912
ENTRY DATE: Entered STN: 20000113
Last Updated on STN: 20000113
Entered Medline: 19991216

L10 ANSWER 11 OF 149 MEDLINE on STN

ACCESSION NUMBER: 2001118342 MEDLINE
DOCUMENT NUMBER: 20568825 PubMed ID: 11118554
TITLE: Novel cationic amphiphilic 1,4-dihydropyridine derivatives for **DNA delivery**.
AUTHOR: Hyvonen Z; Plotniece A; Reine I; Chekavichus B; Duburs G; Urtti A
CORPORATE SOURCE: Department of Pharmaceutics, University of Kuopio, Finland.
SOURCE: BIOCHIMICA ET BIOPHYSICA ACTA, (2000 Dec 20) 1509 (1-2) 451-66.
Journal code: 0217513. ISSN: 0006-3002.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200102
ENTRY DATE: Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20010215

L10 ANSWER 5 OF 149 MEDLINE on STN
ACCESSION NUMBER: 2001459736 MEDLINE
DOCUMENT NUMBER: 21213497 PubMed ID: 11312686
TITLE: Cationic lipid polymerization as a novel approach for constructing new **DNA delivery** agents.
AUTHOR: Wu J; Lizarzaburu M E; Kurth M J; Liu L; Wege H; Zern M A; Nantz M H
CORPORATE SOURCE: Department of Internal Medicine, Transplant Research Institute, University of California-Davis Medical Center, Sacramento, California 95817, USA.
CONTRACT NUMBER: AA-06386 (NIAAA)
DK-09762 (NIDDK)
SOURCE: BIOCONJUGATE CHEMISTRY, (2001 Mar-Apr) 12 (2) 251-7.
Journal code: 9010319. ISSN: 1043-1802.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200108
ENTRY DATE: Entered STN: 20010820
Last Updated on STN: 20010820
Entered Medline: 20010816

AB In vivo gene delivery mediated by cationic lipids is often compromised by aggregation due to complexation with proteins in the blood. To improve the stability of cationic lipid-DNA complexes, the present study aimed to develop a novel approach in which a poly(cationic lipid) (PCL) is utilized to form stable cationic polyplexes for gene transfection. Hydrogenation of the acrylamide analogue of betaAE-DMRI, the polymerizable precursor of PCL, provided a monomeric lipid derivative (MHL) which was used for direct comparison of corresponding lipoplex stability, toxicity, and transfection activity. Various formulations of cationic **liposomes**, such as

L10 ANSWER 42 OF 149 MEDLINE on STN
ACCESSION NUMBER: 97030215 MEDLINE
DOCUMENT NUMBER: 97030215 PubMed ID: 8876156
TITLE: A novel cationic lipid greatly enhances plasmid **DNA** **delivery** and expression in mouse lung.
AUTHOR: Wheeler C J; Felgner P L; Tsai Y J; Marshall J; Sukhu L; Doh S G; Hartikka J; Nietupski J; Manthorpe M; Nichols M; Plewe M; Liang X; Norman J; Smith A; Cheng S H
CORPORATE SOURCE: Vical Inc., San Diego, CA 92121, USA.
SOURCE: PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (1996 Oct 15) 93 (21) 11454-9. Journal code: 7505876. ISSN: 0027-8424.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199612
ENTRY DATE: Entered STN: 19970128
Last Updated on STN: 19980206
Entered Medline: 19961204

AB Effective gene therapy for lung tissue requires the use of efficient vehicles to deliver the gene of interest into lung cells. When plasmid DNA encoding chloramphenicol acetyltransferase (CAT) was administered intranasally to BALB/c mice without carrier lipids, CAT activity was detected in mouse lung extracts. Plasmid DNA delivered with optimally formulated commercially available transfection reagents expressed up to 10-fold more CAT activity in lung than observed with naked DNA alone. Liposome formulations consisting of (+/-)-N-(3-aminopropyl)-N,N-dimethyl-2,3-bis (dodecyloxy)-1-propanaminium bromide (GAP-DLRIE) plus the neutral colipid dioleoylphosphatidylethanolamine (DOPE) enhanced CAT expression by more than 100-fold relative to plasmid DNA alone. A single administration of GAP-DLRIE liposome-CAT DNA complexes to mouse lung elicited peak expression at days 1-4 posttransfection, followed by a gradual return to

14 ANSWER 2 OF 6 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 2000:346893 BIOSIS
DOCUMENT NUMBER: PREV200000346893
TITLE: Noninvasive gene targeting to the brain.
AUTHOR(S): Shi, Ningya; Pardridge, William M. [Reprint author]
CORPORATE SOURCE: Department of Medicine, University of California School of Medicine, Los Angeles, CA, 90095-1682, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (June 30, 2000) Vol. 97, No. 13, pp. 7567-7572. print.
CODEN: PNASA6. ISSN: 0027-8424.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 16 Aug 2000
Last Updated on STN: 7 Jan 2002

AB Gene therapy of the brain is hindered by the presence of the blood-brain barrier (BBB), which prevents the brain uptake of bloodborne gene formulations. Exogenous genes have been expressed in the brain after invasive routes of administration, such as craniotomy or intracarotid arterial infusion of noxious agents causing BBB disruption. The present studies describe the expression of an exogenous gene in brain after noninvasive i.v. administration of a 6- to 7-kb expression plasmid encoding either luciferase or beta-galactosidase packaged in the interior of neutral pegylated immunoliposomes. The latter are conjugated with the OX26 mAb to the rat transferrin receptor, which enables targeting of the plasmid DNA to the brain via the endogenous BBB transferrin receptor. Unlike cationic liposomes, this neutral **liposome formulation** is stable in blood and does not result in selective entrapment in the lung. Luciferase gene expression in the brain peaks at 48 h after a single i.v. administration of 10 mug of plasmid DNA per adult rat, a dose that is 30- to 100-fold lower than that used for gene expression in rodents with cationic liposomes. beta-Galactosida

L14 ANSWER 3 OF 6 MEDLINE on STN DUPLICATE 1

ACCESSION NUMBER: 1999129196 MEDLINE
DOCUMENT NUMBER: 99129196 PubMed ID: 9930335
TITLE: Transfection of cultured myoblasts in high serum concentration with DODAC:DOPE liposomes.
AUTHOR: Vitiello L; Bockhold K; Joshi P B; Worton R G
CORPORATE SOURCE: CRIBI, University of Padova, Italy.
SOURCE: GENE THERAPY, (1998 Oct) 5 (10) 1306-13.
Journal code: 9421525. ISSN: 0969-7128.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199902
ENTRY DATE: Entered STN: 19990311
Last Updated on STN: 19990311
Entered Medline: 19990225

AB The inhibitory effect of serum is one of the main obstacles to the in vivo use of cationic liposomes as a **DNA delivery** system. We have found that a novel **liposome formulation**, DODAC:DOPE (1:1) is totally resistant to the inhibitory effects of serum for transfection of cultured myoblasts and myotubes. Transfection with a lacZ reporter gene in the presence of 95% fetal bovine serum gave up to 25% beta-gal-positive cells in C2C12 myoblasts and about six-fold less in primary human myoblasts. The lower transgene expression in primary cells does not appear to be a result of less DNA uptake but might result from differences in intracellular trafficking of the complexes. DODAC-based liposomes are unique in their resistance to serum inhibition and may therefore be valuable for the systemic delivery of genetic information to muscle and other tissues.

14 ANSWER 6 OF 6 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1996:267342 BIOSIS
DOCUMENT NUMBER: PREV199698823471
TITLE: Evaluation and optimization of different cationic liposome formulations for in vivo gene transfer.
AUTHOR(S): Egilmez, Nejat K.; Iwanuma, Yoshimi; Bankert, Richard B. [Reprint author]
CORPORATE SOURCE: Dep. Molecular Immunology, Roswell Park Cancer Inst., Buffalo, NY 14263, USA
SOURCE: Biochemical and Biophysical Research Communications, (1996) Vol. 221, No. 1, pp. 169-173.
CODEN: BBRCA9. ISSN: 0006-291X.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 10 Jun 1996
Last Updated on STN: 10 Jun 1996

AB Five commonly used cationic liposome formulations were tested for their ability to deliver DNA to established subcutaneous human tumor xenografts in SCID mice. Liposomes were complexed with a mammalian expression plasmid containing the bacterial beta-galactosidase gene and delivered to tumors by direct injection. The optimal lipid to DNA ratios in vivo were markedly different than those observed in vitro for each **liposome formulation**. Tumor size at the time of inoculation also effected transfection efficiency significantly. Of the five liposome formulations tested, DC-Cholesterol was found to be superior to all others in vivo. Even under optimal conditions however, the efficiency of in vivo transfection was low in our system (apprx 0.3%). Implications of these results for in vivo gene therapy of tumors are discussed.